COMMENTARY

Strategies to Bring Transgender and Non-binary Healthcare into Pharmacy Education

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In recent years, reports have shown an increase in the number of transgender and non-binary (TNB) people in the United States. Currently, many pharmacy schools do not offer any instruction specific to TNB people and practicing pharmacists have reported a lack of confidence in managing TNB patients. Regardless of the practice setting, there is an increased likelihood that pharmacy graduates will serve TNB patients. Pharmacy schools and colleges that include TNB-specific education will equip graduates with necessary knowledge and skills to support this vulnerable population. The purpose of this commentary is to suggest methods for incorporation of TNB-related material into pharmacy curricula and to provide resources for developing content.
Keywords: pharmacy education; LGBTQ; transgender; health care education; transgender-related care

INTRODUCTION

A transgender or non-binary (TNB) person has a gender identity different than their sex assigned at birth. As awareness and acceptance of TNB people grows, the number of TNB people seeking care is also increasing.[1] An estimated 1.4 million adults in the United States (0.6% of the population) are TNB.[2] About 0.7% of U.S. high school students are thought to be TNB and estimates of the TNB youth population are as high as 3-12%.[3,4] With increasing numbers of TNB people living their authentic lives, there is a high likelihood that student pharmacists will serve this population during school and throughout their careers.

While the American Association of Colleges of Pharmacy (AACP) does advocate for diversity education that includes gender, most student pharmacists graduate inadequately prepared to provide optimal health care for TNB patients.[5,6] A 2016 publication from Leach and Layson-Wolf examined community pharmacy residents' perceptions of TNB health management. The study found that while 83% of the residents believed that community pharmacists have an important role in TNB health care, only 36% of them reported feeling confident enough to take on that role. Additionally, 72% reported a complete lack of education regarding TNB care while in pharmacy school.[7] A 2018 survey of community pharmacists in North Carolina found that only 36% felt comfortable addressing pronouns, which is, one of the most important aspects of interacting with TNB patients.[8] Tran et al. had similar findings in a 2019 survey related to pharmacists' knowledge of gender affirming therapy. Pharmacists reported belief in the high importance of gender affirming therapy and comfortable interaction with TNB patients. However, nearly 40% of the respondents rated themselves as "not at all prepared" to counsel TNB patients on gender affirming therapy regimens.[9] Furthermore, a survey of 316 U.S. TNB people found that while 90% of them used pharmacists' services, almost half reported apprehensions about experiencing discrimination at the pharmacy. 54% of the respondents perceived pharmacists as having little to no knowledge of TNB-related health care.[10] The lack of confidence reported by pharmacists and knowledge gaps observed by TNB patients are likely due to both a lack of education in pharmacy programs as well as severely limited continuing education opportunities for practicing pharmacists. Another factor might lie with the pharmacists themselves and a lack of interest in seeking TNB-related education; however, interest may grow as more pharmacists interact with TNB people. Eckstein and colleagues evaluated the incorporation of TNB-related care in pharmacy school curricula. Among the 66 pharmacy programs that responded to a 2018 survey, 53% addressed TNB care within their curriculum, while 13% did not address the topic at all and had no plans to do so in the next three years.[6]

This commentary discusses the value of inclusion of TNB-centered material in pharmacy education, explores approaches for integration of TNB patient care into curricula, and provides resources for developing content.

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TNB Health Disparities

The word transgender is frequently used as an umbrella term describing someone whose gender identity differs from the sex assigned at birth. The term cisgender, or non-TNB, describes someone whose gender identity that is the same as their sex assigned at birth.[11] Typically, sex is assigned at birth based on genitals. Gender identity, however, is the brain's understanding of "self" as a woman, a man, a combination of both, or neither and is usually established around 2-6 years of age.[12] Non-binary persons identify as other than a man or woman or not exclusively as man or woman.[13] Gender nonconforming people have gender expressions and/or identities outside of societal norms.[14] It is important to note that not all non-binary people identify as transgender. Thus, we have chosen the term TNB to ensure inclusion of a broader range of transgender and non-binary identities. Since many non-binary people also identify as transgender, we chose to use TNB rather than the term transgender when discussing studies that did not specifically delineate between transgender and non-binary identities.

The TNB community experiences significant disparities across all determinants of health, including higher rates of homelessness, unemployment, and poverty.[14-17] Additionally, experiences of violence and victimization are frequent for TNB individuals and results in long-lasting effects on both the individual and the community.[15,18,19] According to the National Transgender Discrimination Survey, 40% of TNB people reported suicide attempts, as compared with 4.6% of the general population.[16] There is strong evidence that gender affirming care, including pharmacotherapy, is highly effective at resolving gender dysphoria while also improving patients' quality of life. However, TNB patients often face barriers when seeking medical care.[20] One in four adult TNB patients will delay necessary health care for fear of discrimination.[15] TNB youth have also reported avoidance of doctor check-ups more frequently than their non-TNB counterparts.[21] In addition to dealing with discrimination and bias, more than half of TNB patients describe feeling obligated to educate their provider, in order to receive appropriate care.[15] For instance, a recent U.S. survey reported that 71% of TNB patients found it necessary to enlighten providers at some point. Roughly 20% of respondents obtained prescription medications from close contacts or online pharmacies that do not require a prescription. Moreover, 46% chose to use natural products to avoid seeking a prescription altogether.[10]

Current status of TNB Care in Health care Professional Education

Health care professional education programs including medicine, nursing and physical therapy have identified curriculum gaps in lesbian, gay, bisexual, TNB, and queer (LGBTQ+) patient care. Nearly a decade ago, Parkhill and colleagues described the need for TNB health content in pharmacy curricula.[6,22-24] The Association of American Medical Colleges (AAMC) released a report in 2007 recommending incorporation of educational activities addressing the needs of LGBTQ+ students and patients.[25] In 2014, the AAMC released another report detailing curricular and institutional climate change recommendations necessary to improve health care of LGBTQ+ individuals.[26] This report encouraged schools to teach excellent communication skills and comprehensive care for the LGBTQ+ population. The report included 30 competencies that could be integrated into schools' curricula. Medical schools that added more hours of LGBTQ+ topics into existing classes ascertained that students were more prepared and comfortable caring for the LGBTQ+ patient population.[27,28] In 2018, the American Nursing Association released a position statement titled, "Nursing Advocacy for LGBTQ+ Populations" which "affirms the need for nurses in all roles and settings to provide culturally congruent, competent, sensitive, safe, inclusive, and ethical care to members of LGBTQ+ populations, as well as to be informed and educated about the provision of culturally competent care."[29] However, while the gaps in LGBTQ+ curricula have been identified and schools have begun integrating this curricula into their programs, inadequate acknowledgement or inclusion of TNB-specific health care needs and education still remains throughout all health professions.[6-9,30]

Overcoming Barriers to Including TNB Health care in Pharmacy Curricula

Reasons for the lack of TNB-related instruction in pharmacy curricula may be multifactorial. Eckstein and colleagues reported that 47% of pharmacy programs had no access to qualified faculty able to teach TNB-related care in their curricula.[6] While faculty may not have received specific training or have extensive experience caring for TNB people, it is possible to educate themselves to teach students. It is not uncommon for faculty, especially junior faculty, to lecture on topics in which they possess limited first-hand clinical experience. Table 1 includes free resources available to faculty for self-education on appropriate terminology and practice guidelines related to serving TNB patients. Furthermore, outside experts and consultants can present on the topic or faculty can collaborate with an expert to develop content. Ideally, the education related to TNB care is accurate and comprehensive. For instance, if non-binary patients are left out of the discussion, students may not be able to provide quality care for them.

Other barriers cited by pharmacy programs include difficulty in changing the curriculum (33%) and not having enough time to teach TNB care within the curriculum (21%).[6] While a complete overhaul to pharmacy program curricula

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in general remains a long-term goal, it is possible to immediately integrate material regarding TNB patients within existing courses. For example, instructional patient cases can introduce TNB patients for any disease state to facilitate student exposure and familiarity. This could include commonly described disease states such as hypertension, diabetes, or pneumonia. Specifically, it is vital that TNB relevant communications avoid being relegated strictly discussions surrounding sexually transmitted infections or hormonal pharmacotherapy. Currently, there are several publications describing ways in which various pharmacy schools have incorporated transgender pharmacy care into the curriculum which serve as useful resources.[31-34]

Additional obstacles to further development or implementation of TNB content in pharmacy curricula are an absence of interest in topical inclusion (15%) and lack of support from the faculty (8%).[6] It is noteworthy to acknowledge that faculty are not required to fully understand or morally agree with a patient's choices in order to be supportive and provide evidence-based medicine and life-saving affirming care. Faculty can empower students to be empathetic and provide quality care regardless of personal beliefs.

The inclusion of TNB health care meets several of the 2016 Accreditations Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree (2016 Standards) from the Accreditation Council for Pharmacy Education (ACPE).[5] In case-based learning, educators can create cases with a TNB patient and require the student to evaluate the patient as a whole to make specific recommendations for gender affirming care or other conditions to meet Standard 2.1 (Patient-centered Care). Standard 2.4 (Population based care) and Standard 3.5 (Cultural sensitivity) can be met by discussing health disparities in TNB patients and guiding students regarding value of non-gendered language or pronouns.

Appropriately inquiring about and being supportive of a patient's gender identity enhances the patient-provider interaction and regular use of care.[35] Students should reflect on their beliefs and attitude about TNB people for their awareness, personal growth and to be able to meet standard 4.1 (Self-Awareness). Having students examine their own gender identity offers powerful opportunities to gain self-awareness of implicit biases and learn how these often subconscious preconceptions impact patient care. Two examples of thought-provoking questions are "How did you know what your gender was?" and "What reactions arise in you when you meet a person who tells you they are transgender or non-binary?" Table 2 lists recommended TNB patient care topics to include in pharmacy curricula.

Treating the Whole TNB Patient

As noted earlier, several health care professions have identified ways to increase awareness of the LGBTQ+ population. However, TNB patients have medical needs that reach beyond cultural competency. Discussion of increased prevalence of HIV, depression, suicide, and substance abuse is often found in literature regarding the TNB community and the majority of research focuses on these areas. Nonetheless, the association between marginalized gender identities and other physical health outcomes is lesser known. In a study comparing TNB and cisgender Medicare beneficiaries, TNB people were younger but found to have more chronic conditions than their non-transgender counterparts. These conditions included higher rates of asthma, neurological/chronic pain conditions, obesity, COPD, and hepatitis and other liver conditions.[36] Additionally, a 2014 study found TNB individuals were at higher risk for poor general health, more days per month of poor physical health, and myocardial infarction, regardless of hormone use. TNB individuals were also less likely to utilize primary or dental care or have access to health insurance. However, contrary to other studies, TNB individuals were found to be no more likely to smoke or binge drink than non-TNB individuals.[37]

Ideally, TNB patient care should be woven throughout the curriculum so students have multiple exposures to reinforce and expand on previously learned materials. While there are components of TNB patient care that are specific to the TNB population, TNB patients are susceptible to the same disease states as cisgender patients. By focusing solely on conditions related to gender identity, students may not view TNB patients holistically or recognize health care needs outside of their gender identity.

CONCLUSION

Pharmacists' reported lack of self-confidence in conjunction with TNB patients' mistrust of pharmacists' abilities demonstrate a need for improved and increased education to produce pharmacists competent in providing TNB health care. As an Academy, we have an opportunity to develop pharmacy graduates equipped with the knowledge and skills to improve health care for one of the United States' most at-risk populations. While pharmacy programs have begun to include some content on TNB health care, an increase in the inclusion of TNB-related care would equip graduates who could improve the care for all patients, regardless of their gender identity.

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REFERENCES

1. Nolan IT, Kuhner CJ, and Dy GW. Demographic and temporal trends in transgender identities and gender confirming surgery. *Trans Androl Urol*. 2019 Jun;8(3):184-190.
2. Flores AR, Herman JL, Gates GJ, and Brown TNT. How many adults identify as transgender in the united states? Los Angeles, CA: The Williams Institute. 2011. http://williamsinstitute.law.ucla.edu/wp-content/uploads/Gates-How-Many-People-LGBT-Apr-2011.pdf Accessed February 25, 2020.
3. Herman JL, Flores AR, Brown TNT, Wilson, BDM, and Conron KJ. Age of individuals who identify as transgender in the united states. Los Angeles, CA: The William's Institute. 2017. https://williamsinstitute.law.ucla.edu/wp-content/uploads/TransAgeReport.pdf. Accessed February 20, 2020
4. Gay and Lesbian Association Against Defamation. Accelerating Acceptance 2017. https://www.glaad.org/files/aa/2017_GLAAD_Accelerating_Acceptance.pdfPublished March 2017. Accessed February 25, 2020.
5. Accreditation Council for Pharmacy Education. Accreditation standards and key elements for the professional program in pharmacy leading to the doctor of pharmacy degree. Standards 2016. https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf.
6. Eckstein MA, Newsome CC, Borrego ME, Burnett A, Wittstrom K, Conklin JR. A cross-sectional survey evaluating transgender-related care education in United States pharmacy school curricula. *Curr Pharm Teach Learn*. 2019;11(8):782-792. doi:10.1016/j.cptl.2019.04.005
7. Leach C and Layson-Wolf C. Survey of community pharmacy residents' perceptions of transgender health management. *J Am Pharm Assoc*. 2016;56(4):441-445.
8. Aragon KG, Conklin J, Lenell A, Rhodes LA, and Marciniak MW. Examining community-based pharmacist perceptions on the care of transgender patients. *J Am Pharm Assoc* 2019;59(4S):S62-S66.
9. Tran MT, Swank SD, Oliver AS, Lipscomb JS. Pharmacists perceptions and preparedness regarding gender-affirming hormone therapy. *J Am Pharm Assoc*. in press.
10. Lewis NJW, Batra P, Misiolek BA, Rockafellow S, and Tupper C. Transgender/gender nonconforming adults' worries and coping actions related to discrimination: Relevance to pharmacist care. *Am J Health-Syst Pharm*. 2019;76:512-520.
11. Fact Sheet: Transgender and Gender Nonconforming Youth in School. Sylvia Rivera Law Project. Updated 2020. Accessed on 02/18/2020.
12. Rafferty J. Gender Identity Development in Children. Healthy Children.org. https://www.healthychildren.org/English/ages-stages/gradeschool/Pages/Gender-Identity-and-Gender-Confusion-In-Children.aspx. Updated 09/18/2018. Accessed on 02/18/2020.
13. LGBTQ+ Terminology. Cleveland State University LGBTQ+ Resource Guide. https://www.csuohio.edu/lgbtq/lgbtq-resource-guide#terminology. Accessed on 05/10/2020.
14. American Psychological Association. Public policies, prejudice, and sexual and gender minority health. https://www.apa.org/advocacy/health-disparities/sgm-health.pdf. Accessed February 19, 2020.
15. James SE, Herman JL, Rnakin S, Keisling M, Mottet L, and Anafi M. (2016). The report of the 2015 US transgender survey. Washington, DC. National center for transgender equality. https://www.transequality.org/sites/default/files/docs/usts/USTS%20Full%20Report%20-%20FINAL%201.6.17.pdf. Accessed February 20, 2020.
16. Martinez-Velez JJ, Melin K, and Rodriguez-Diaz CE. A preliminary assessment of selected determinants of health in a sample of transgender and gender nonconforming individuals in Puerto Rico. *Transgend Health* 2019;4(1):9-17.
17. Pega F and Veale JF. The case for the world health organization's commission on social determinants of health to address gender identity. *Am J Public Health* 2015;105(3):e58-e62.
18. Testa RJ, Sciacca LM Wang F, Hendricks ML, Goldblum P, Bradford J, & Bongar B. Effects of violence on transgender people. *Prof Psych: Res and Pract, 2012;43*(5),452–59. https://doi.org/10.1037/a0029604
19. Grant JM, Mottet LA, Tanis J, et al. Injustice at Every Turn: A Report of the National Transgender Discrimination Survey. Washington: National Center for Transgender Equality and National Gay and Lesbian Task Force; 2011.
20. Murad MH Elamin MB, Garcia MZ, et al. Hormonal therapy and sex reassignment: a systematic review and meta-analysis of quality of life and psychosocial outcomes. *Clin Endocrinol (Oxf)* 2010; 72:214.
21. Rider GN, McMorris BJ, Gower AL, Coleman E, and Eisenberg ME. Heath and care utilization of transgender and gender nonconforming youth: a population-based study. *Pediatrics* 2018;141(3):e20171683.

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22. Carabez R, Pellegrini M, Mankovitz A, Eliason M, Ciano M, Scott M. "Never in All My Years…": Nurses' Education About LGBT Health. J Prof Nurs. 2015; 31(4):323-329. Published 2015 Jan 30.
23. Copti N, Shahriari R, Wanek L, Fitzsimmons A. Lesbian, Gay, Bisexual, and Transgender Inclusion in Physical Therapy: Advocating for Cultural Competency in Physical Therapist Education Across the United States. *J of Physical Therapy Education*. 2016;30(4):11-16.
24. Parkhill AL, Gainsburg J, Fearing S, Mathews JL. The Need for Transgender Health Content in the Pharmacy Curriculum. *Innovations in Pharmacy*. 2011;2(4), article 58.
25. Association of American Medical Colleges. Institutional Programs and Educational Activities to Address the Needs of Gay, Lesbian, Bisexual and Transgender (GLBT) Students and Patients. https://myhs.ucdmc.ucdavis.edu/documents/41620/0/Recommendations+Regarding+GLBT+Students+and+Patients.pdf/3e41ba7f-b71b-4983-879b-d166da744829. Accessed 3 May 2020.
26. Association of American Medical Colleges. Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who are LGBT, Gender Nonconforming, or Born with DSD. https://store.aamc.org/downloadable/download/sample/sample_id/129/. Accessed May 3, 2020.
27. Brown RD, Clarke B, Gortmaker V, Robinson-Keilig R. Assessing the campus climate for gay, lesbian, bisexual, and transgender (GLBT) students using a multiple perspectives approach. *J coll Stud Dev*. 2004;45(1):8-26.
28. Park JA, Safer JD. Clinical Exposure to Transgender Medicine Improves Students' Preparedness Above Levels Seen with Didactic Teaching Alone: A Key Addition to the Boston University Model for Teaching Transgender Healthcare. *Transgend Health*. 2018;3(1):10–16. Published 2018 Jan 1. doi:10.1089/trgh.2017.0047
29. American Nursing Association. Nursing Advocacy for LGBTQ+ Populations. https://www.nursingworld.org/~49866e/globalassets/practiceandpolicy/ethics/nursing-advocacy-for-lgbtq-populations.pdf. Accessed 22 May 2020.
30. Dubin SN, Nolan IT, Streed CG Jr, Greene RE, Radix AE, Morrison SD. Transgender health care: improving medical students' and residents' training and awareness. *Adv Med Educ Pract*. 2018; 9:377-391.
31. Leach C, Seung H, Layson-Wolf C. Student pharmacists' perceptions of transgender health management. *Curr Pharm Teach Learn*. 2019;11(12):1254-1258. doi:10.1016/j.cptl.2019.09.015
32. Newsome C, Chen LW, Conklin J. Addition of Care for Transgender-Related Patient Care into Doctorate of Pharmacy Curriculum: Implementation and Preliminary Evaluation. *Pharmacy (Basel)*. 2018;6(4):107. Published 2018 Sep 29. doi:10.3390/pharmacy6040107
33. Ostroff JL, Ostroff ML, Billings S, Nemec EC 2nd. Integration of transgender care into a pharmacy therapeutics curriculum. *Curr Pharm Teach Learn*. 2018;10(4):463- 468. doi:10.1016/j.cptl.2017.12.016
34. Redfern J.S. Jann M.W. The evolving role of pharmacists in transgender health care. *Transgend Health*. 2019; 4: 118-130.
35. Steele LS, Tinmouth JM, Lu A. Regular health care use by lesbians: A path analysis of predictive factors. *Fam Pract*. 2006;23:631-6.
36. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull*. 2003;129(5):674-97.
37. Dragon CN, Guerino P, Ewald E, and Laffan AM. Transgender Medicare Beneficiaries and chronic conditions: exploring fee-for-service claims data. *LGBT Health*. 2017;4(6):404-11.

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